AAA COLLEGE OF ENGINEERING & TECHNOLOGY
(An ISO 9001 : 2015 Certified Institution)
(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)
Amathur, Sivakasi - 626 005. www.aaaenggcoll.ac.in

AAA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

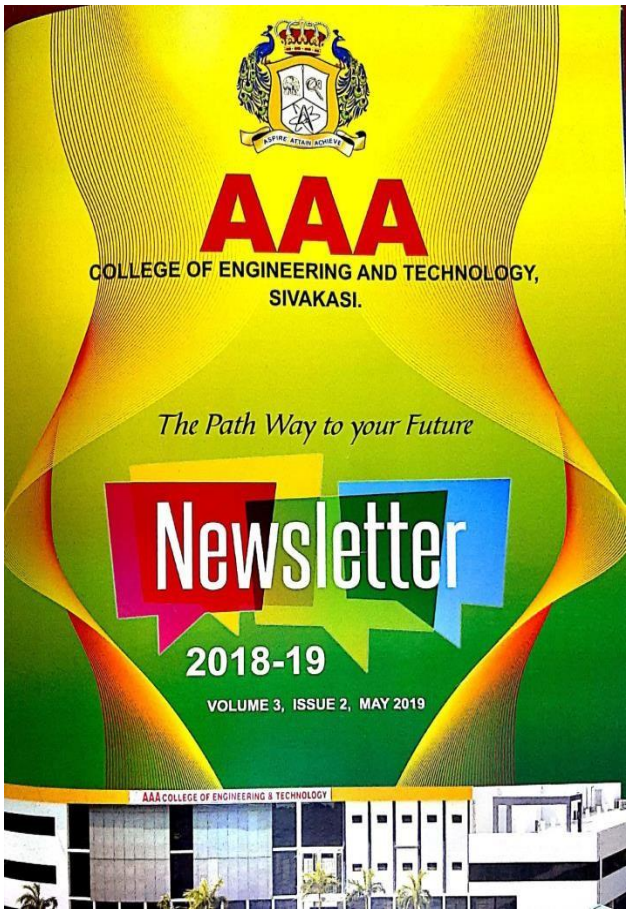
Kamarajar Educational Road, Amathur, Sivakasi – 626 005.

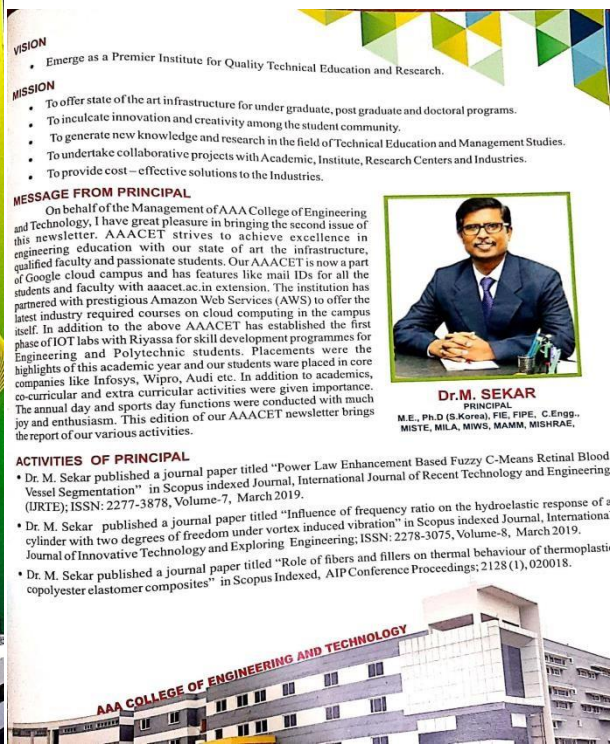
www.aaaenggcoll.ac.in. Ph: 04562-251111

The Mission & Vision of the Institute and the Mission, Vision, PSOs & PEOs of the Department are published in the following locations:

S. No	LOCATION	INSTITUTE		DEPARTMENT			
		Vision	Mission	Vision	Mission	PO/PSO	CO
1	College Website (https://www.aaaenggcoll.ac.in/vision-and-mission/)	✔	✔	✔	✔	✔	✔
2	Newsletter	✔	✔				
3	Admission Brochures	✔	✔				
4	HOD Room			✔	✔	✔	
5	Faculty Room			✔	✔	✔	
6	Department Notice Boards			✔	✔	✔	
7	Laboratory			✔	✔	✔	✔
8	Classroom			✔	✔	✔	✔
9	Library	✔	✔			✔	
10	Lab Manual			✔	✔		
11	Course File and Course Plan	✔	✔	✔	✔	✔	✔
12	Parent Communication Letter	✔	✔			✔	
13	Seminar Hall	✔	✔			✔	
14	Auditorium	✔	✔			✔	
15	Main Corridors	✔	✔			✔	
16	Department Corridors	✔	✔	✔	✔	✔	

NEWSLETTER





VISION

- Emerge as a Premier Institute for Quality Technical Education and Research.

MISSION

- To offer state of the art infrastructure for under graduate, post graduate and doctoral programs.
- To inculcate innovation and creativity among the student community.
- To generate new knowledge and research in the field of Technical Education and Management Studies.
- To undertake collaborative projects with Academic, Institute, Research Centers and Industries.
- To provide cost – effective solutions to the Industries.

MESSAGE FROM PRINCIPAL

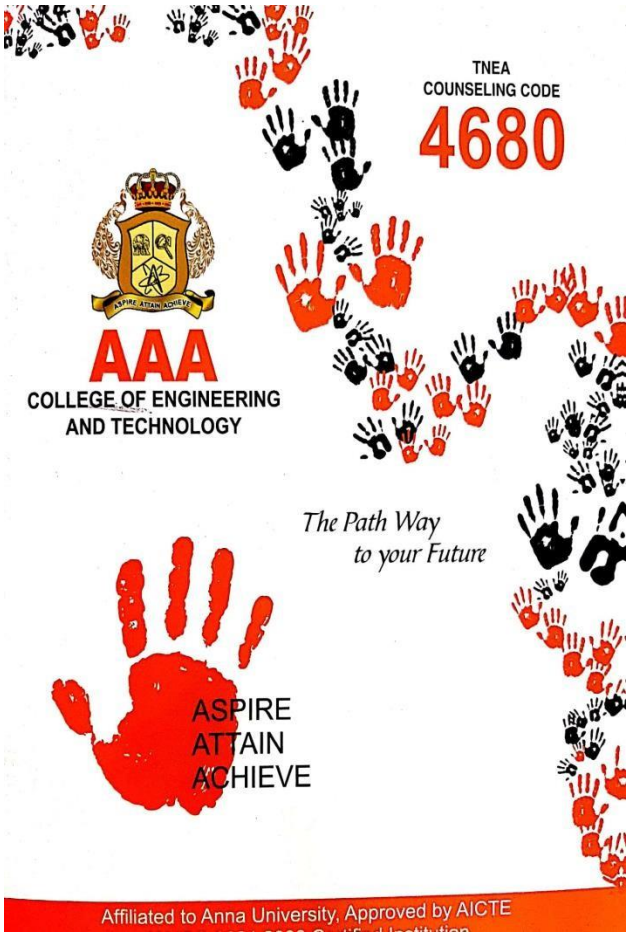
On behalf of the Management of AAA College of Engineering and Technology, I have great pleasure in bringing the second issue of this newsletter. AAACET strives to achieve excellence in engineering education with our state of art the infrastructure, qualified faculty and passionate students. Our AAACET is now a part of Google cloud campus and has features like mail IDs for all the students and faculty with aaacet.ac.in extension. The institution has partnered with prestigious Amazon Web Services (AWS) to offer the latest industry required courses on cloud computing in the campus itself. In addition to the above AAACET has established the first phase of IOT labs with Riyassa for skill development programmes for Engineering and Polytechnic students. Placements were the highlights of this academic year and our students ware placed in core companies like Infosys, Wipro, Audi etc. In addition to academics, co-curricular and extra curricular activities were given importance. The annual day and sports day functions were conducted with much joy and enthusiasm. This edition of our AAACET newsletter brings the report of our various activities.

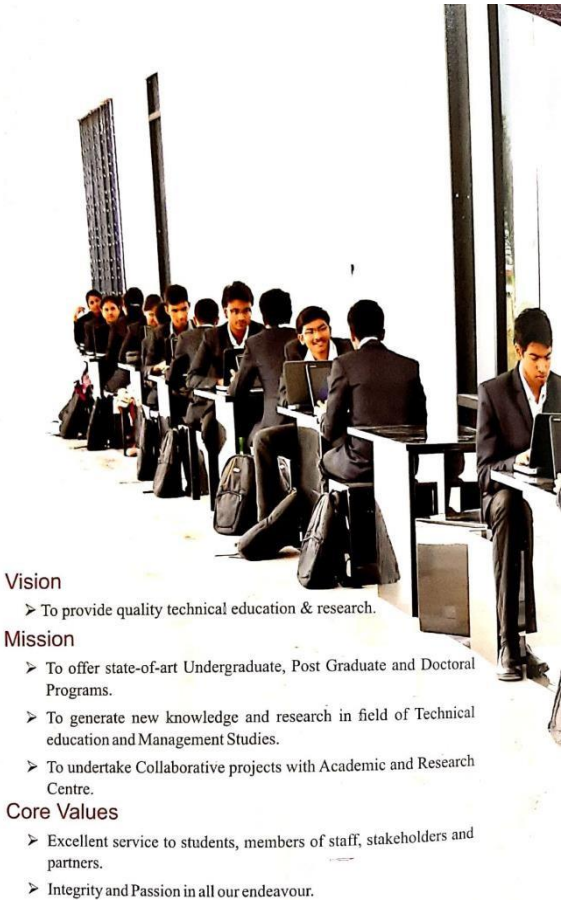
Dr.M. SEKAR
PRINCIPAL
M.E., Ph.D (S.Korea), FIE, FIPE, C.Engg.,
MISTE, MILA, MIWS, MAMM, MISHRAE.

ACTIVITIES OF PRINCIPAL

- Dr. M. Sekar published a journal paper titled "Power Law Enhancement Based Fuzzy C-Means Retinal Blood Vessel Segmentation" in Scopus indexed Journal, International Journal of Recent Technology and Engineering (IJRTE); ISSN: 2277-3878, Volume-7, March 2019.
- Dr. M. Sekar published a journal paper titled "Influence of frequency ratio on the hydroelastic response of a cylinder with two degrees of freedom under vortex induced vibration" in Scopus indexed Journal, International Journal of Innovative Technology and Exploring Engineering; ISSN: 2278-3075, Volume-8, March 2019.
- Dr. M. Sekar published a journal paper titled "Role of fibers and fillers on thermal behaviour of thermoplastic copolyester elastomer composites" in Scopus Indexed, AIP Conference Proceedings; 2128 (1), 020018.

ADMISSION BROCHURE





Vision

- To provide quality technical education & research.

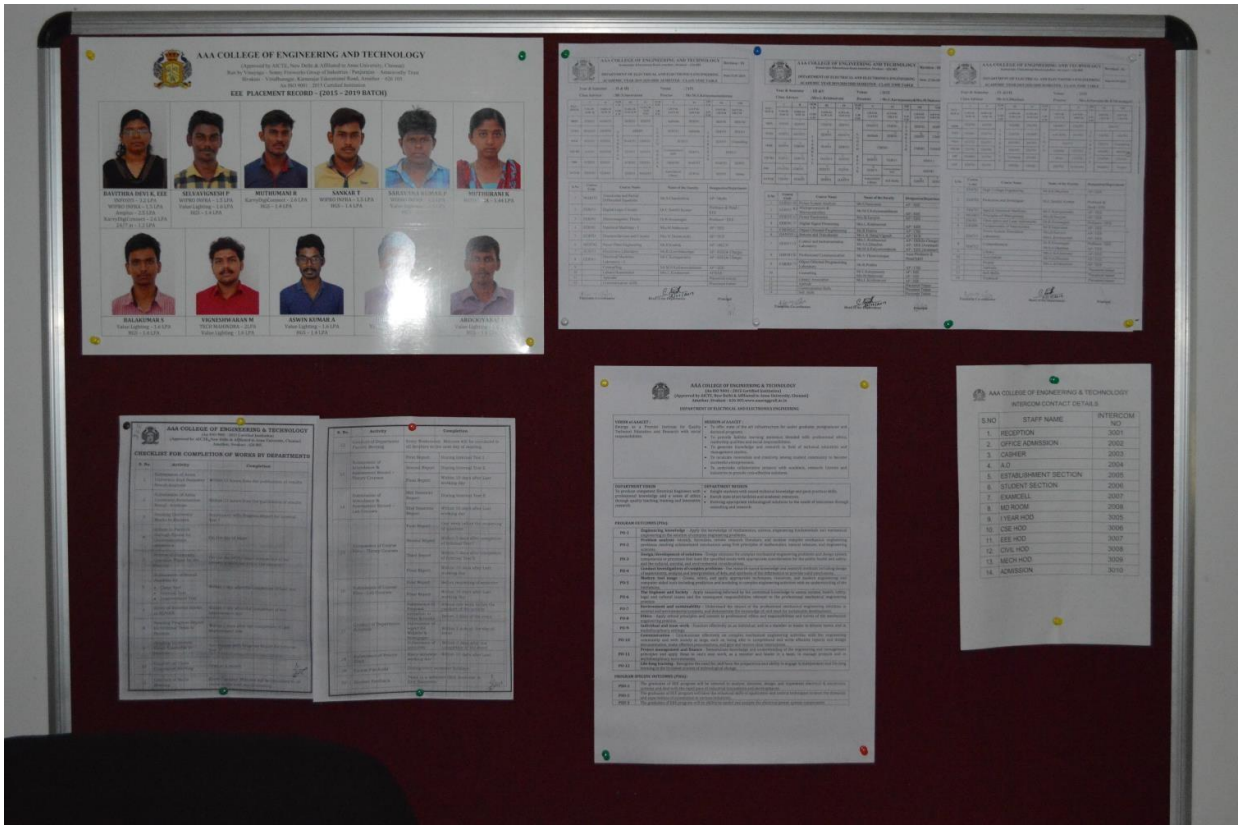
Mission

- To offer state-of-art Undergraduate, Post Graduate and Doctoral Programs.
- To generate new knowledge and research in field of Technical education and Management Studies.
- To undertake Collaborative projects with Academic and Research Centre.

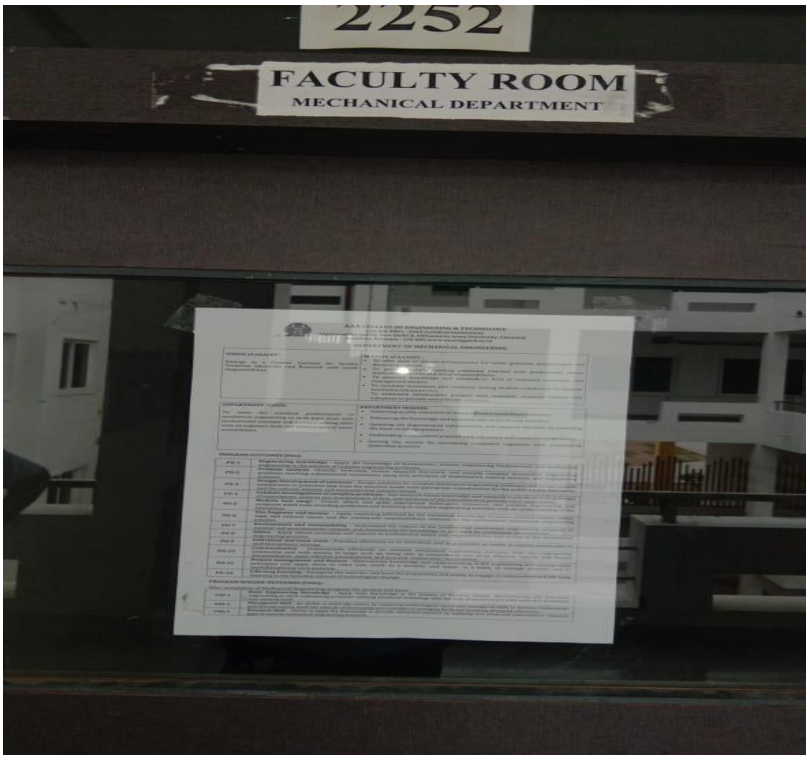
Core Values

- Excellent service to students, members of staff, stakeholders and partners.
- Integrity and Passion in all our endeavour.

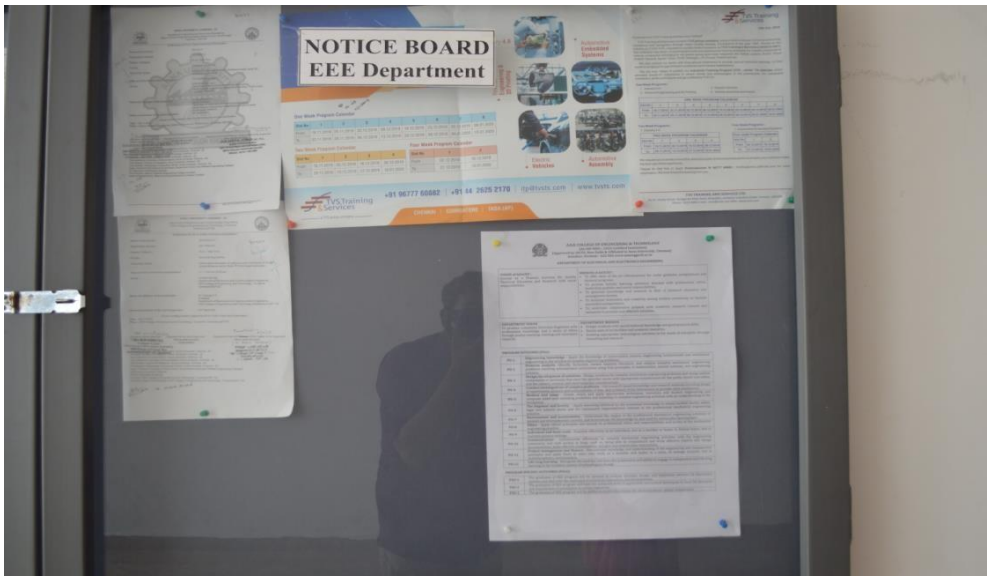
HOD ROOM

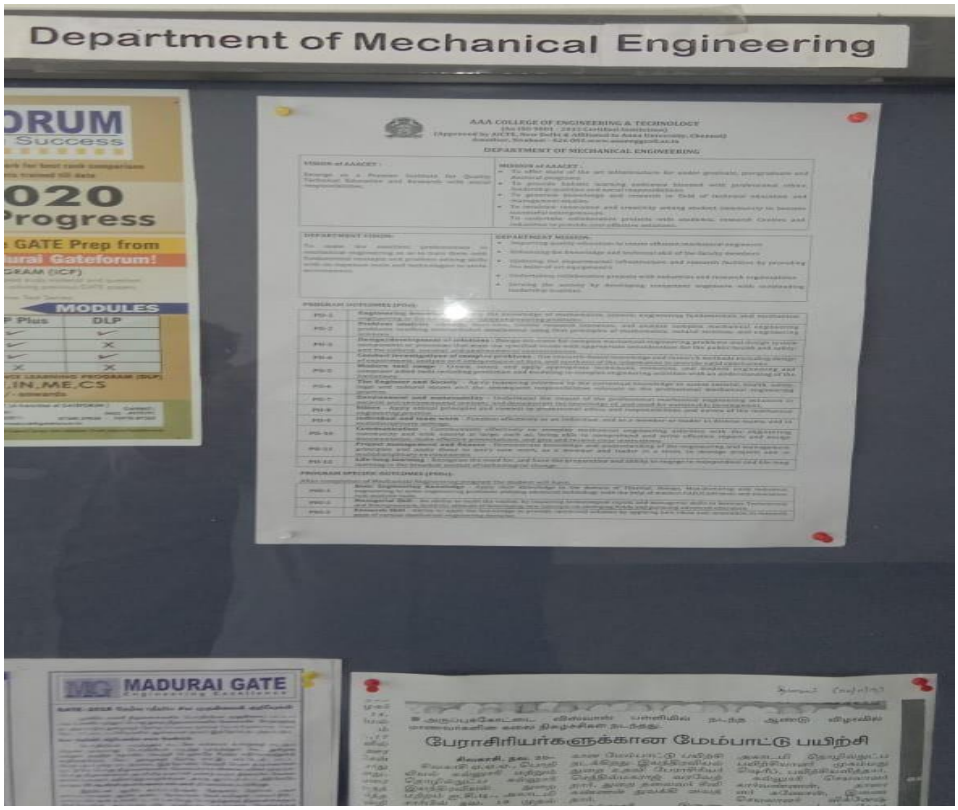

AAA COLLEGE OF ENGINEERING AND TECHNOLOGY
EEE PLACEMENT RECORD - (2015 - 2019 BATCH)
AAA COLLEGE OF ENGINEERING & TECHNOLOGY
CHECKLIST FOR COMPLETION OF WORKS BY DEPARTMENTS
AAA COLLEGE OF ENGINEERING & TECHNOLOGY
INTERCOM CONTACT DETAILS
S.NO
STAFF NAME
INTERCOM NO
1. RECEPTION 3001
2. OFFICE ADMISSION 3002
3. CASHIER 3003
4. A.O 3004
5. ESTABLISHMENT SECTION 3005
6. STUDENT SECTION 3006
7. EXAMCELL 3007
8. MD ROOM 3008
9. I YEAR HOD 3005
10. CSE HOD 3006
11. EEE HOD 3007
12. CIVIL HOD 3008
13. MECH HOD 3009
14. ADMISSION 3010

FACULTY ROOM

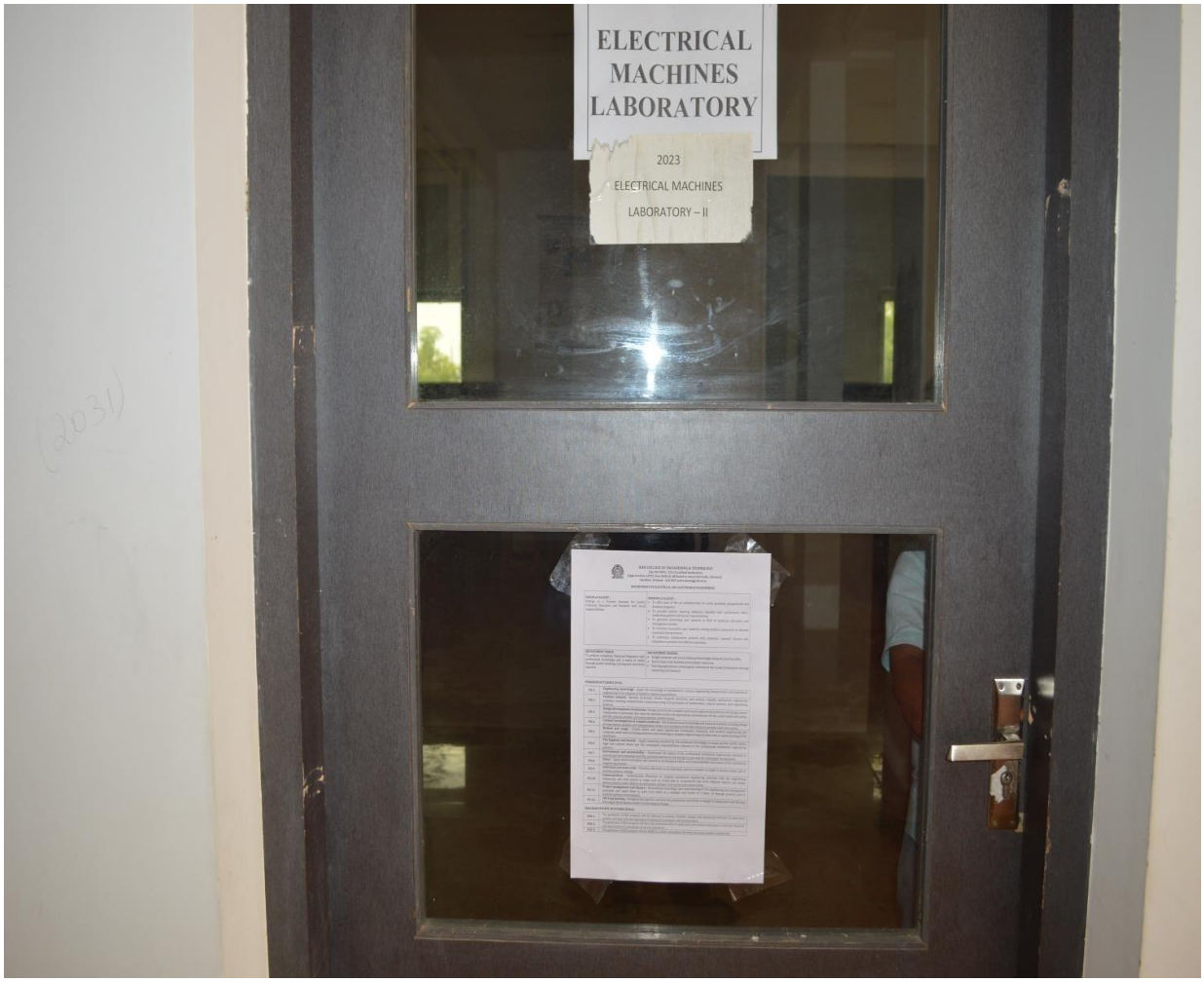


NOTICE BOARD

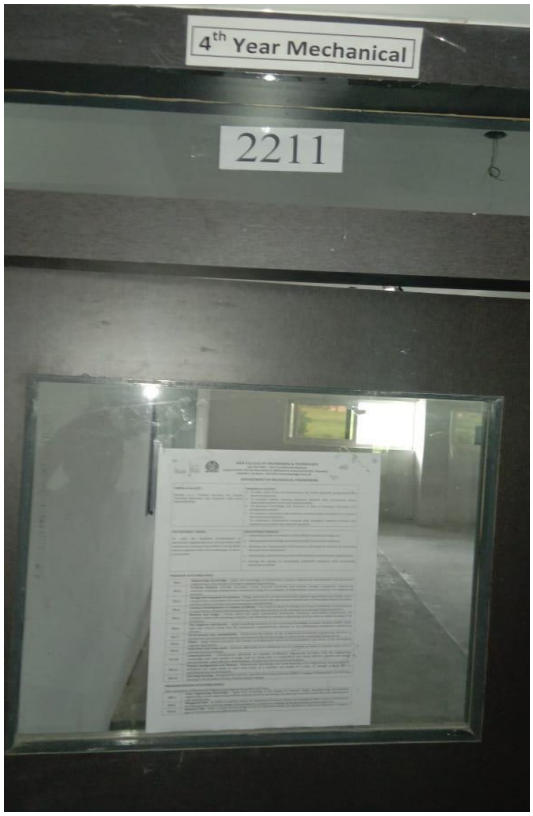




LABORATORY


ELECTRICAL
MACHINES
LABORATORY
2023
ELECTRICAL MACHINES
LABORATORY – II

CLASS ROOM (DISPLAY OF POs, PSOs AND COs)



LIBRARY


LIBRARY
60'X30'
1206
Vision
Emerge as a Premier Institute for Quality Technical Education and Research with social responsibilities.
Mission
• To offer state of the art infrastructure for under graduate, postgraduate and doctoral programs.
• To provide holistic learning ambience blended with professional ethics, leadership qualities and social responsibilities.
• To generate knowledge and research in field of technical education and management studies.
• To inculcate innovation and creativity among student community to become successful entrepreneurs.
• To undertake collaborative projects with academic, research Centres and industries to provide cost-effective.

PARENTCOMMUNICATION LETTER

AAA College of Engineering & Technology

Affiliated to Anna University, Chennai. Approved by AICTE, New Delhi

Kamarajar Educational Road, Amathur - 626005, Virudhunagar Dt.

PROGRESS REPORT

Date : 19-11-2019

Name : ANNIE REENU J
Batch : 2019-2023
Programme : B.E FIRST

Roll No. : D01
Semester : First Semester
Register No: 953719104006

Attendance Details upto **20-11-2019** are given as under:

No. Working Days Classes Conducted	No. of Days Attended	No. of Days Absent	No. of Days Granted Absent	Attendance % வருகை %
18	18	-	-	100 %

Performance in the **Internal Test - III**

S.No.	Course Code	Course Name	Marks Obtained	Max. Marks	Result
1	HS8151	COMMUNICATIVE ENGLISH	64	100	PASS
2	MA8151	ENGINEERING MATHEMATICS I	62	100	PASS
3	PH8151	ENGINEERING PHYSICS I	80	100	PASS
4	CY8151	ENGINEERING CHEMISTRY I	80	100	PASS
5	GE8151	PROBLEM SOLVING AND PYTHON PROGRAMMING	82	100	PASS
6	GE8152	ENGINEERING GRAPHICS	100	100	PASS

Remarks : Need more concentration on MATHS

Class Advisor | Dept. HOD | Principal

ACKNOWLEDGEMENT

Name : ANNIE REENU J
Batch : 2019-2023
Programme : B.E FIRST
Parents Remarks :

Roll No. : D01
Semester : First Semester
Activity : Internal Test - III

Parent Signature & Date :

இந்த ஒப்புகை சீட்டில் கையெழுத்திட்டு தங்கள் மகளிடம் கொடுத்து அனுப்பவும்.

Book Post

Stamp

From

AAA College of Engineering & Technology
Kamarajar Educational Road,
Amathur - 626005,Virudhunagar Dt.
Ph : 04562-251111 Fax : 04562-228885
E-mail : principal@aaacet.ac.in

To

ANNIE REENU J(D01)
D/o : JAMES I
1717/2, 56 COLONY ROAD, APG COMPLEX, SIVAKASI EAST
SIVAKASI, - 626189
Ph : 9750890697

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Dear Parents,

As our college is progressing towards excellence, it is inevitable to revise our vision and mission from **01.09.2019**.

VISION of AAACET:

Emerge as a Premier Institute for Quality Technical Education and Research with social responsibilities.

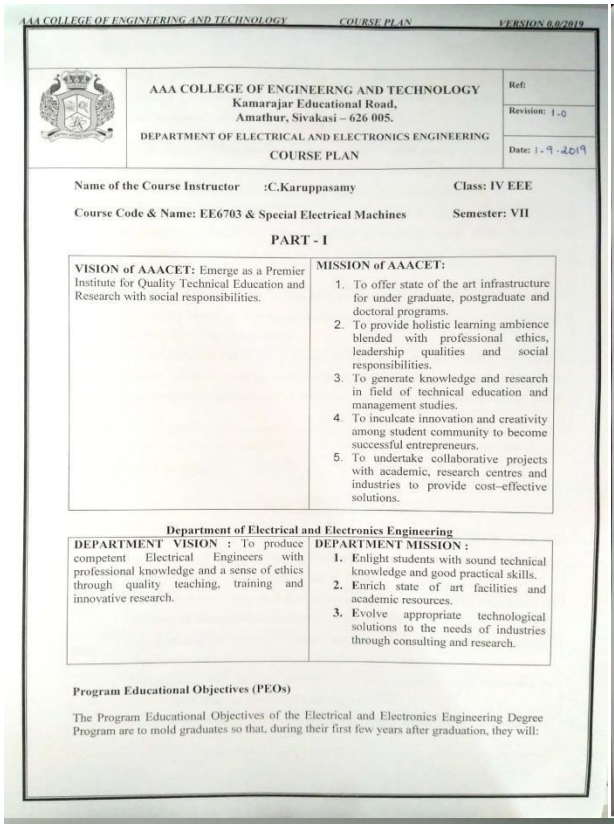
MISSION of AAACET:

- To offer state of the art infrastructure for under graduate, postgraduate and doctoral programs.
- To provide holistic learning ambience blended with professional ethics, leadership qualities and social responsibilities.
- To generate knowledge and research in field of technical education and management studies.
- To inculcate innovation and creativity among student community to become successful entrepreneurs.
- To undertake collaborative projects with academic, research centres and industries to provide cost-effective solutions.

PROGRAM OUTCOMES (POs):

PO-1	**Engineering knowledge** - Apply the knowledge of mathematics, science, engineering fundamentals and mechanical engineering to the solution of complex engineering problems.
PO-2	**Problem analysis** -Identify, formulate, review research literature, and analyze complex mechanical engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO-3	**Design/development of solutions** - Design solutions for complex mechanical engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO-4	**Conduct investigations of complex problems** - Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO-5	**Modern tool usage** - Create, select, and apply appropriate techniques, resources, and modern engineering and computer aided tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO-6	**The Engineer and Society** - Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional mechanical engineering practice.
PO-7	**Environment and sustainability** - Understand the impact of the professional mechanical engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO-8	**Ethics** - Apply ethical principles and commit to professional ethics and responsibilities and norms of the mechanical engineering practice.
PO-9	**Individual and team work** - Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10	**Communication** - Communicate effectively on complex mechanical engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO-11	**Project management and finance** - Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO-12	**Life-long learning** - Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

COURSE PLAN



AAA COLLEGE OF ENGINEERING AND TECHNOLOGY — COURSE PLAN — VERSION 0.0/2019

AAA COLLEGE OF ENGINEERNG AND TECHNOLOGY
Kamarajar Educational Road,
Amathur, Sivakasi – 626 005.
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
COURSE PLAN

Ref:
Revision: 1.0
Date: 1.9.2019

Name of the Course Instructor :C.Karuppasamy Class: IV EEE

Course Code & Name: EE6703 & Special Electrical Machines Semester: VII

PART - I

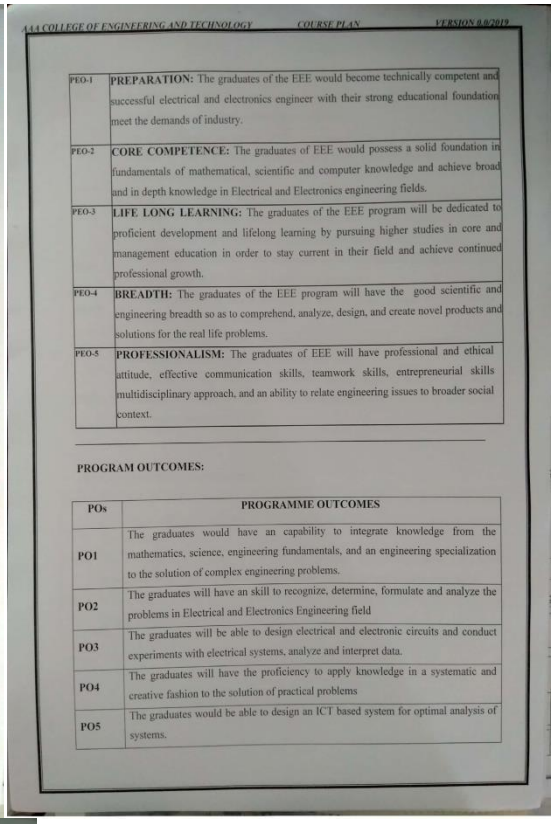
VISION of AAACET:	MISSION of AAACET:
Emerge as a Premier Institute for Quality Technical Education and Research with social responsibilities.	1. To offer state of the art infrastructure for under graduate, postgraduate and doctoral programs. 2. To provide holistic learning ambience blended with professional ethics, leadership qualities and social responsibilities. 3. To generate knowledge and research in field of technical education and management studies. 4. To inculcate innovation and creativity among student community to become successful entrepreneurs. 5. To undertake collaborative projects with academic, research centres and industries to provide cost–effective solutions.

Department of Electrical and Electronics Engineering

DEPARTMENT VISION :	DEPARTMENT MISSION :
To produce competent Electrical Engineers with professional knowledge and a sense of ethics through quality teaching, training and innovative research.	1. Enlight students with sound technical knowledge and good practical skills. 2. Enrich state of art facilities and academic resources. 3. Evolve appropriate technological solutions to the needs of industries through consulting and research.

Program Educational Objectives (PEOs)

The Program Educational Objectives of the Electrical and Electronics Engineering Degree Program are to mold graduates so that, during their first few years after graduation, they will:

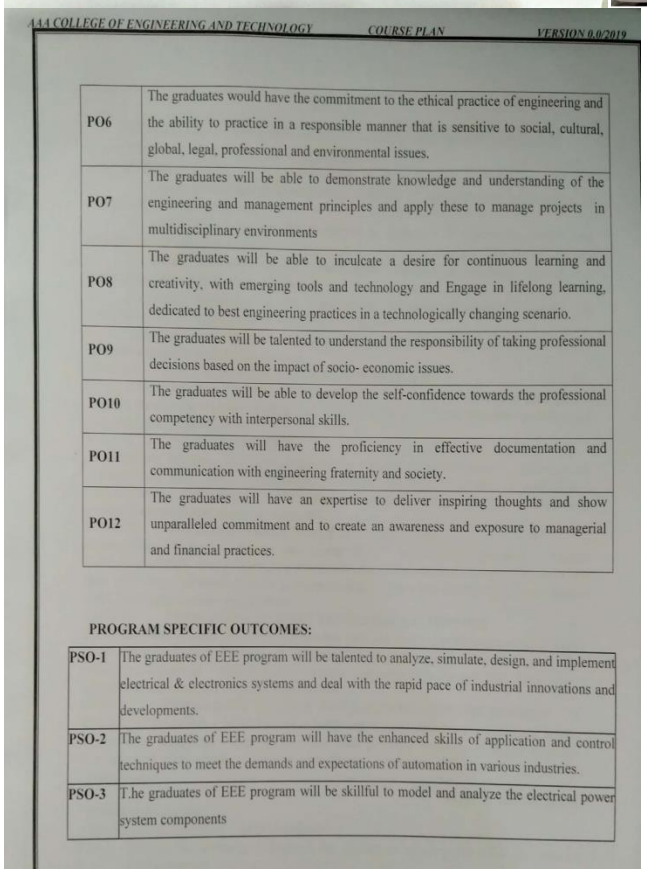


AAA COLLEGE OF ENGINEERING AND TECHNOLOGY — COURSE PLAN — VERSION 0.0/2019

PEO-1	**PREPARATION:** The graduates of the EEE would become technically competent and successful electrical and electronics engineer with their strong educational foundation meet the demands of industry.
PEO-2	**CORE COMPETENCE:** The graduates of EEE would possess a solid foundation in fundamentals of mathematical, scientific and computer knowledge and achieve broad and in depth knowledge in Electrical and Electronics engineering fields.
PEO-3	**LIFE LONG LEARNING:** The graduates of the EEE program will be dedicated to proficient development and lifelong learning by pursuing higher studies in core and management education in order to stay current in their field and achieve continued professional growth.
PEO-4	**BREADTH:** The graduates of the EEE program will have the good scientific and engineering breadth so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.
PEO-5	**PROFESSIONALISM:** The graduates of EEE will have professional and ethical attitude, effective communication skills, teamwork skills, entrepreneurial skills multidisciplinary approach, and an ability to relate engineering issues to broader social context.

PROGRAM OUTCOMES:

POs	PROGRAMME OUTCOMES
PO1	The graduates would have an capability to integrate knowledge from the mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	The graduates will have an skill to recognize, determine, formulate and analyze the problems in Electrical and Electronics Engineering field
PO3	The graduates will be able to design electrical and electronic circuits and conduct experiments with electrical systems, analyze and interpret data.
PO4	The graduates will have the proficiency to apply knowledge in a systematic and creative fashion to the solution of practical problems
PO5	The graduates would be able to design an ICT based system for optimal analysis of systems.



AAA COLLEGE OF ENGINEERING AND TECHNOLOGY — COURSE PLAN — VERSION 0.0/2019

PO6	The graduates would have the commitment to the ethical practice of engineering and the ability to practice in a responsible manner that is sensitive to social, cultural, global, legal, professional and environmental issues.
PO7	The graduates will be able to demonstrate knowledge and understanding of the engineering and management principles and apply these to manage projects in multidisciplinary environments
PO8	The graduates will be able to inculcate a desire for continuous learning and creativity, with emerging tools and technology and Engage in lifelong learning, dedicated to best engineering practices in a technologically changing scenario.
PO9	The graduates will be talented to understand the responsibility of taking professional decisions based on the impact of socio- economic issues.
PO10	The graduates will be able to develop the self-confidence towards the professional competency with interpersonal skills.
PO11	The graduates will have the proficiency in effective documentation and communication with engineering fraternity and society.
PO12	The graduates will have an expertise to deliver inspiring thoughts and show unparalleled commitment and to create an awareness and exposure to managerial and financial practices.

PROGRAM SPECIFIC OUTCOMES:

PSO-1	The graduates of EEE program will be talented to analyze, simulate, design, and implement electrical & electronics systems and deal with the rapid pace of industrial innovations and developments.
PSO-2	The graduates of EEE program will have the enhanced skills of application and control techniques to meet the demands and expectations of automation in various industries.
PSO-3	The graduates of EEE program will be skillful to model and analyze the electrical power system components

PART II

SYLLABUS AS PER ANNA UNIVERSITY REGULATION 2013

EE6703 SPECIAL ELECTRICAL MACHINES **LT P C 3 0 0 3**

OBJECTIVES:

- To impart knowledge on Construction, principle of operation and performance of synchronous reluctance motors.
- To impart knowledge on the Construction, principle of operation, control and performance of stepping motors.
- To impart knowledge on the Construction, principle of operation, control and performance of switched reluctance motors.
- To impart knowledge on the Construction, principle of operation, control and performance of permanent magnet brushless D.C. motors.
- To impart knowledge on the Construction, principle of operation and performance of permanent magnet synchronous motors.

UNIT I SYNCHRONOUS RELUCTANCE MOTORS 9

Constructional features – Types – Axial and Radial flux motors – Operating principles – Variable Reluctance Motors – Voltage and Torque Equations - Phasor diagram - performance characteristics – Applications.

UNIT II STEPPER MOTORS 9

Constructional features – Principle of operation – Variable reluctance motor – Hybrid motor – Single and multi stack configurations – Torque equations – Modes of excitation – Characteristics – Drive circuits – Microprocessor control of stepper motors – Closed loop control-Concept of lead angle–Applications.

UNIT III SWITCHED RELUCTANCE MOTORS (SRM) 9

Constructional features – Rotary and Linear SRM - Principle of operation – Torque production –Steady state performance prediction- Analytical method -Power Converters and their controllers –Methods of Rotor position sensing – Sensor less operation – Characteristics and Closed loop control– Applications.

UNIT IV PERMANENT MAGNET BRUSHLESS D.C. MOTORS 9

Permanent Magnet materials – Minor hysteresis loop and recoil line-Magnetic Characteristics –Permeance coefficient -Principle of operation – Types – Magnetic circuit analysis – EMF and torque equations – Commutation - Power Converter Circuits and their controllers – Motor characteristics and control– Applications.

UNIT V PERMANENT MAGNET SYNCHRONOUS MOTORS (PMSM) 9

Principle of operation – Ideal PMSM – EMF and Torque equations – Armature MMF – Synchronous Reactance – Sine wave motor with practical windings - Phasor diagram – Torque/speed characteristics - Power controllers - Converter Volt-ampere requirements– Applications.

TOTAL : 45 PERIODS

COURSE OUTCOMES:

After the course, the student should be able to:

CO-1	Explain the necessity to improve the saliency of synchronous reluctance motor and its characteristics.
CO-2	Compare the various methods of excitation of different types of stepper motor and its driver circuits.
CO-3	Describe the operation of switched reluctance motor with and without sensors.
CO-4	Explain the electronic commutation of permanent magnet brushless D.C. motors and to determine the torque production.
CO-5	Derive the expression for emf and torque of permanent magnet synchronous motors and choose power controller for permanent magnet synchronous motors.